Patent Claims

1. Rotary press with anti-rotation secured shafts and exchangeable punches attached thereto,

w h e r e i n

the exchangeable punch (6, 7), in each case, is executed in a rotational manner opposite its punch shaft, where a circumferential recess (27, 30) exists in the stem (8, 9) of the punch (6,7), into which a connecting component, in particular a spring thrust piece (4) engages for a rotational connection of the punch with the punch shaft, and that the shell surface of the exchangeable punch (6,7) indicates a zone (1) which interacts with a zone (29) of an component (33) arranged location-fixed at the rotary press opposite the punch circumference, with a force-locking or a positive locking effect in such a way that the punch (6,7) receives a turning movement at a defined point of the pitch circle of the punch circumference.

2. Rotary press according to Claim 1,

w h e r e i n

the shell surface of the upper and/or the lower punch (6,7) indicates such a zone (1) for interacting with zones (29) of the external component (33).

3. Rotary press according to Claim 1,

w h e r e i n

the external component (33) for the upper punch (6) and the lower punch (7) is separately adjustable in design and can be brought into differently defined points of the pitch circle, where the external component (33) is radially positionable around the pitch circle of the punch circumference.

4. Rotary press according to Claim 1,

w h e r e i n

the external component (33) has a bearing location which is radially elastic.

5. Rotary press according to Claim 1,
w h e r e i n
a seal (36) in the form of an element such as a labyrinth seal is envisaged for the purpose of sealing between the punch shaft (15, 16) and the rotational punch (6, 7).

6. Rotary press according to Claim 1,
w h e r e i n
the force-locking or positive locking zone (1) of the shell surface of the exchangeable punch (6, 7) interacting with the zone (29) of the external component (33) is executed as a separated and exchangeable element of the punch (6, 7).

7. Rotary press according to Claims 1, 2 and 6,
w h e r e i n
the interacting zones (1, 29) of the shell surface and the external component (33) are designed as serration or as friction surfaces.

8. Rotary press according to Claim 7,
w h e r e i n
the serrations of the interacting zones (1, 29) are low in mass and are designed very elastically in the circumferential direction.

9. Rotary press according to Claim 8,
w h e r e i n
the zone (29) of the external component (33) is executed as an elastically yielding spring element in the movement direction of the punch, and this being in such a way that the occurring impact energy can be absorbed and, simultaneously, a secure and reliable engagement into the zone (1) of the shell surface of the punch (6, 7) is ensured.

10. Rotary press according to Claim 8,
w h e r e i n
the zone (1) of the shell surface (1) of the punch (6, 7) indicates a tooth profile such as a trapezoidal profile, saw tooth profile, adapted to the zone (29) of the external component (33).

11. Rotary press according to Claims 8 to 10,
w h e r e i n
the zone (29) of the external component (33) indicates several spring elements (37), lying one behind the other in the movement direction of the punch (6, 7) and arranged in a comb-like manner.

12. Rotary press with anti-rotation secured shafts and exchangeable punches attached thereto, as well as with dies,
w h e r e i n
the dies (14) are trunnion-supported and indicate on their outer sides a serration or a friction surface, which interacts with a zone (29) of a component (33) arranged location-fixed at the rotary press opposite the punch circumference, in a force-locking or positive locking manner in such a way that the punch (6,7) receives a rotational movement at a defined point of the pitch circle of the punch circumference.